

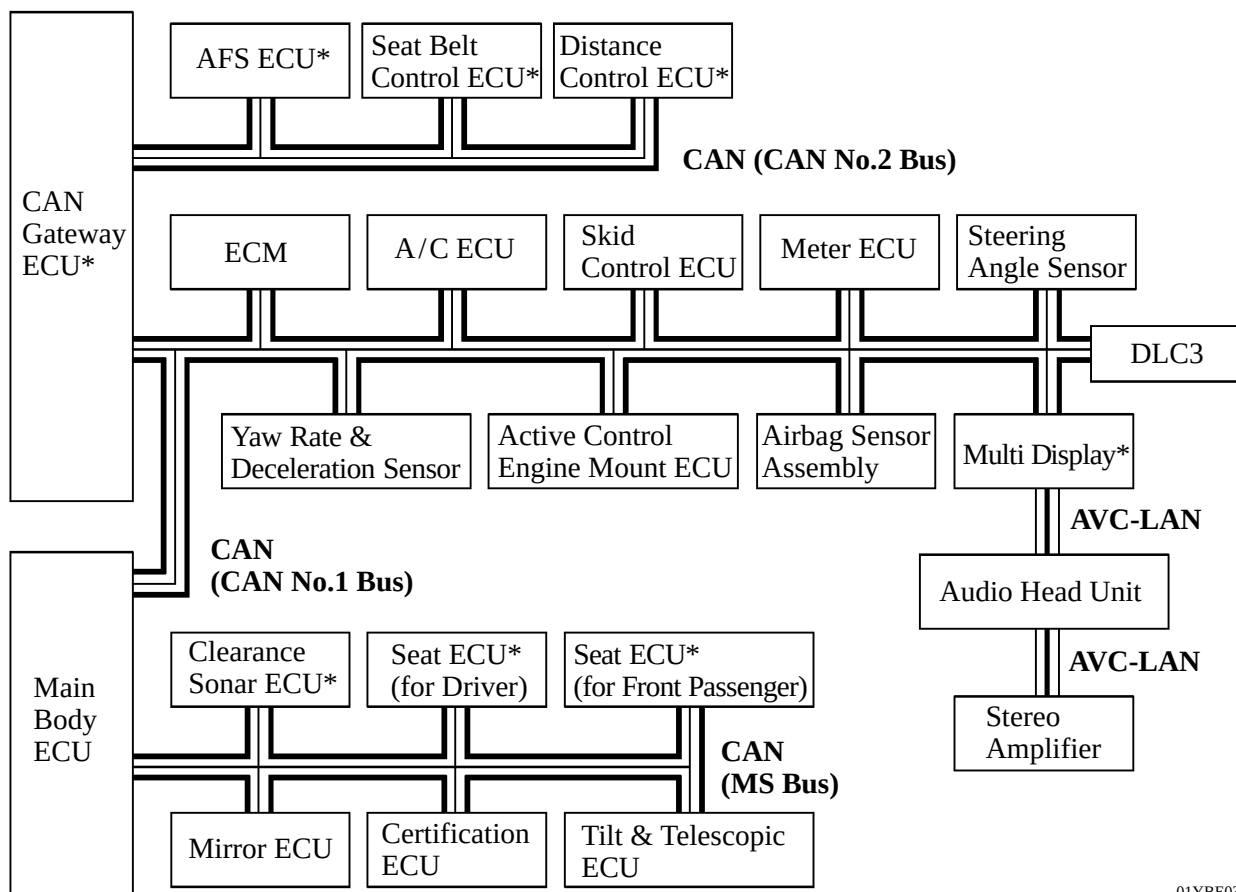
BODY ELECTRICAL

MULTIPLEX COMMUNICATION

■ DESCRIPTION

- The multiplex communication system of the '07 ES350 uses the 2 communication protocols described below in order to achieve a streamlined wiring harness configuration.
 - CAN (Controller Area Network): Classified into two types according to communication speed, the HS (High Speed)-CAN is used for the power train, chassis and body electrical systems, and the MS (Medium Speed)-CAN is used for the body electrical system.
 - AVC-LAN (Audio Visual Communication - Local Area Network): Used for communication only between the audio-visual systems.
- The HS-CAN consists of two busses (the CAN No.1 bus and CAN No.2 bus) and the MS-CAN consists of one bus (MS bus). ECUs with gateway functions (the CAN gateway ECU and main body ECU) are used to transmit data between the busses.
- Due to the introduction of the CAN system for the power train, chassis and body electrical systems, the BEAN (Body Electronics Area Network) that is used for the body electrical system on some conventional models is not used on this model.
- A customized body electronics system is used, enabling the control functions of the ECUs to be set using a hand-held tester. For details, see page BE-14.

► System Diagram ◀



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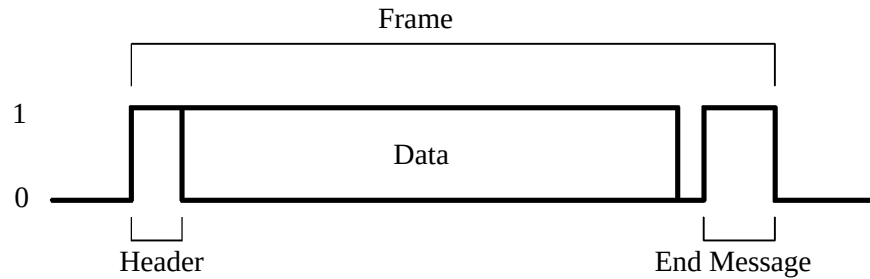
*: Optional equipment

— REFERENCE —

MPX communication uses serial communication data that consists of bits and frames in order to exchange information among the various ECUs. This allows a reduction of the amount of wiring on the vehicle.

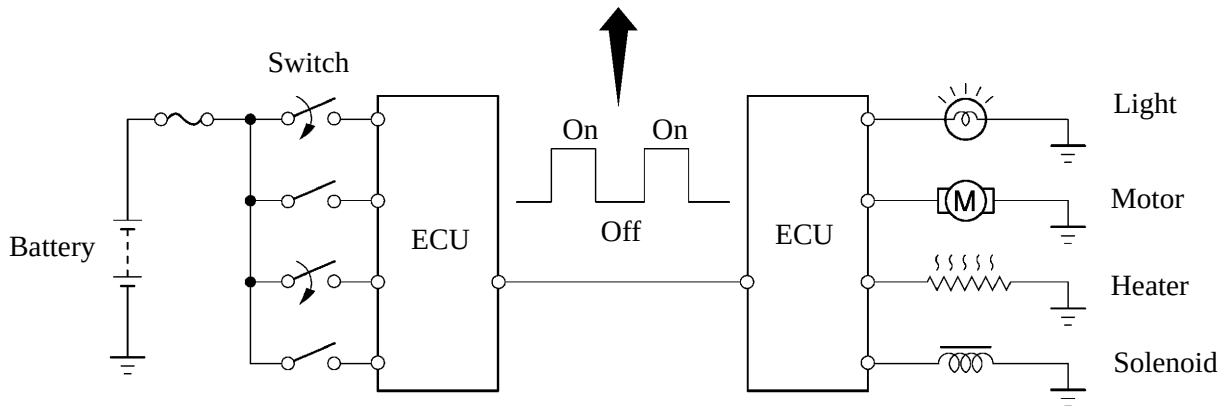
- A bit is the basic unit of communication that is used to represent the information. A bit is represented by binary values of “0” or “1”.
- A frame is a body of data that is transmitted together. A frame contains a header that indicates the beginning, and an end message that indicates the end.

► Conceptual Drawing ◀



240BE05

Serial Communication Data



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